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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,387	07/06/2006	Bian Jianzheng	16836.2	2993
22913	7590	10/11/2007		
WORKMAN NYDEGGER 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			EXAMINER FERGUSON, MICHAEL P	
			ART UNIT 3679	PAPER NUMBER
			MAIL DATE 10/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/585,387

**Applicant(s)**

JIANZHENG, BIAN

**Examiner**

Michael P. Ferguson

**Art Unit**

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### *Drawings*

2. The drawings are objected to because of the following:

In Figures 1-13, the drafting centerlines should be deleted.

Figures 2 and 7 fail to use proper hidden lines to show the overlapping of plate tongues **1010,1011,1012**, shown in side view.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred content for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

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- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

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- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

4. The disclosure is objected to because of the following informalities:

In the specification, paragraphs [0026] and [0027] fail to comply with the suggested content for the BRIEF DESCRIPTION OF THE DRAWINGS section of the specification, as set forth above.

Appropriate correction is required.

### ***Claim Objections***

5. Claim 14 is objected to because of the following informalities:

Claim 14 (line 2) recites "hole of the lock plate". It should recite --second hole in the lock plate--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 (lines 13-14) recite "wherein the eccentric cam on the eccentric lock can and the stop tooth on the lock plate constitute a stop structure". It is unclear as to how the eccentric cam and the stop tooth interact to define a stop structure of the connecting lock, or as to what structurally defines a "stop structure"; claim 9 fails to recite any limitations as to how the eccentric cam and the stop tooth structurally and functionally interact to define such stop structure. Such claim only defines standalone elements of

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the connecting lock, without providing any limitations as to how such standalone elements are structurally or functionally related to one another. Claims 10-16 depend from claim 9 and are likewise rejected.

8. Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships which render the claim indefinite are as follows:

Claim 9 fails to set forth the structural or functional relationship between the eccentric cam and the stop tooth.

Claim 10 defines a barrier tooth on the lock plate without providing any limitations as to how such element structurally relate to or functions with the other elements of the connecting lock.

Claim 11 defines a first rectangular hole on the lock shell without providing any limitations as to how such element structurally relate to or functions with the other elements of the connecting lock.

Claim 12 defines a second rectangular hole on the lock shell without providing any limitations as to how such element structurally relate to or functions with the other elements of the connecting lock.

Claim 13 defines a flange strip on the lock shell without providing any limitations as to how such element structurally relate to or functions within the connecting lock.



Claim 14 defines a flange on the lock plate without providing any limitations as to how such element structurally relate to or functions with the other elements of the connecting lock.

Claim 15 defines a U-shaped half-loop on the lock plate without providing any limitations as to how such element structurally relate to or functions with the other elements of the connecting lock.

Claim 16 defines a wedged bulge on the lock plate without providing any limitations as to how such element structurally relate to or functions with the other elements of the connecting lock.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's Admitted Prior Art (Figures 1-3).

As to claim 9, Applicant's Admitted Prior Art (Figures 1-3) discloses a connecting lock for exhibition stands, the connecting lock comprising:

a lock shell **1** having inclined bearing surfaces **121,221** in a front portion thereon;

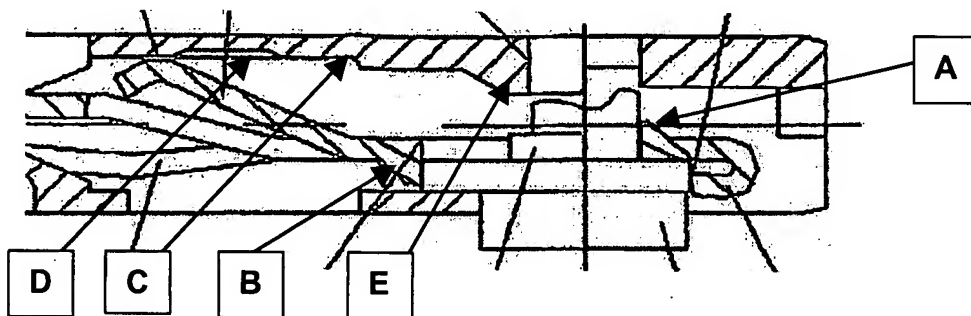
a lock plate **2** having a front end and a back end, a plurality of plate tongues **1010,1011,1012** being disposed at the front end of the lock plate, an end of each plate tongue being bent into a hook **21,22,23** with a reverse bending direction between

adjacent hooks and each plate tongue having a beveled surface, the plate tongues being separated by a plurality of elongated slots **1001,1002**, each slot being divided into three sections **41,42,43** of different widths;

a stop tooth **A** (Figure 1 reprinted below with annotations) disposed on the lock plate; and

an eccentric lock cam **3**, having an eccentric cam, the lock plate being inserted into the lock shell, and the eccentric lock cam being inserted through a first hole and a second hole **5**, and into a third hole **53**, wherein the first hole has an arc and the first hole and the third hole are formed in the lock shell, and the second hole is formed in the lock plate,

wherein the eccentric cam on the eccentric lock cam and the stop tooth on the lock plate constitute a stop structure (Figures 1-3).



As to claim 10, Applicant's Admitted Prior Art (Figure 1) discloses a connecting lock comprising a barrier tooth **B** on the lock plate **2**.

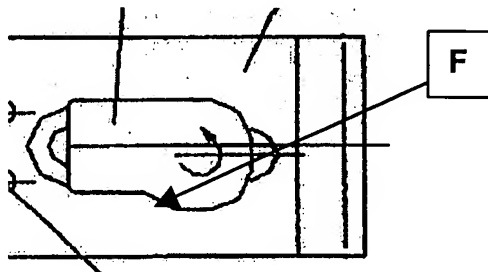
As to claim 11, Applicant's Admitted Prior Art (Figure 1) discloses a connecting lock wherein a first rectangular hole **C** is formed on an upper surface of the lock shell **1**.

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As to claim 12, Applicant's Admitted Prior Art (Figure 1) discloses a connecting lock wherein a second rectangular hole **D** is formed on an upper side of the lock shell **1**.

As to claim 13, Applicant's Admitted Prior Art (Figure 1) discloses a connecting lock comprising a flange strip **E** disposed on an internal surface of a bottom side of the lock shell **1**.

As to claim 14, Applicant's Admitted Prior Art (Figure 3) discloses a connecting lock comprising a flange **F** (Figure 3 reprinted below with annotations) on the hole of the lock plate **2**.



As to claim 15, Applicant's Admitted Prior Art (Figure 1) discloses a connecting lock wherein the back end of the lock plate **2** is bent into a U-shaped half-loop **26** having an end surface that is a planar.

As to claim 16, Applicant's Admitted Prior Art (Figure 1) discloses a connecting lock comprising a wedged bulge **26** disposed on the lock plate **2**.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to connecting locks:

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Hackenberg (US 4,455,103), Vieler (US 5,127,761), Vieler (US 5,143,474), Schomakers (US 5,464,298) and Strassle et al. (US 6,106,183) are cited for pertaining to connecting locks comprising a lock shell, a lock plate and an eccentric lock cam.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (6:30am-3:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MPF  
10/09/07



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